Cement & Concrete Composites **16** (1994) 319–322
© 1994 Elsevier Science Limited
Printed in Great Britain. All rights reserved

Index

Index for Volume 16
Bold type is used for contributors to this volume. The suffix e indicates editorial comment; c, a conference; r, a book review.

- Accelerated aging, wastepaper-fibre-reinforced cement composites, 115-28
- Acrylic fibres as reinforcement for cement pastes, 31-7
- Aggregates. *See* Alkali-aggregate reactivity
- **Alekrish, Alwaleed A.** and Alsayed, 'Shrinkage of fibre and reinforced fibre concrete beams in hot-dry climate', 299-307
- Alkali hydroxides in alkali-silica reaction, 219-26
- Alkali-aggregate reactivity, 161e, 169
  - accelerated test method, 189-98
  - standard test methods, 199-206
  - test methods, 161e
- Alkali-reactive carbonate rocks, autoclave method for identification of, 163-7
- Alkali reactivity, sands, 177-88
- Alkali-silica reaction
  - alkali hydroxides in, 219-26
  - mineral admixtures, 207-18
- **Alsayed, Saleh H.** and Alekrish, 'Shrinkage of fibre and reinforced fibre concrete beams in hot-dry climate', 299-307
- **Amat, T.**, Blanco and Palomo, 'Acrylic fibres as reinforcement for cement pastes', 31-37
- **Austin, S.A.**, Richards and Robins, 'The resistance of steel fibre concrete to VTOL engine jet blast', 57-64
- Autoclave method
  - alkali-reactive carbonate rocks, 163-7
  - alkali reactivity of sands, 177-88

- **Balaguru, P.**, 66r
- Banana-fibre-reinforced cement composites, 3-8
  - density, 7
  - flexural strength, 6
  - fracture toughness, 7
  - modulus of elasticity, 7
  - water absorption, 7
- **Batis, G.**, Kouloumbi and Malami, 'The anticorrosive effect of fly ash, slag and Greek pozzolan in reinforced concrete', 253-260
- **Berra, M.**, Mangialardi and Paolini, 'Application of the NaOH bath test method for assessing the effectiveness of mineral admixtures against reaction of alkali with artificial siliceous aggregate', 207-218
- **Bérubé, M.-A.** and Frenette, 'Testing concrete for AAR in NaOH and NaCl solutions at 38°C and 80°C', 189-198
- Biaxial compression, steel fibre concrete, 9-14
- **Biswas, M.**, Ray and Gupta, 'Effect of latex and superplasticiser on Portland cement mortar in the fresh state', 309-316
- **Blanco, M.T.**, Palomo and Amat, 'Acrylic fibres as reinforcement for cement pastes', 31-37
- Blast-furnace slag in alkali-silica reaction, 207-18
- Blended cements
  - municipal wastewater sludge, 39
  - paste and concrete, properties of, 73-81
- **Bungey, J.H.** and Madandoust, 'Strength variations in lightweight concrete beams', 49-55

- Calcium hydroxide, effects on aging, 124
- Calcium phosphate cements, properties of, 93-106
- Carbon-fibre composite cables (CFCC), 1-2e
- Carbon-fibre reinforced composites, reliability analysis, 19
- Carbon-fibre-reinforced composites
  - flexural strength, 18
  - strength and reliability, 15-21
  - tensile strength, 18
- Carbonate rock, alkali reactivity, 163-7
- Cement pastes, acrylic fibres as reinforcement for, 31-7
- Cementitious composites axial tensile technique (CCATT), 15
- **Chabanis, B.**, Criaud, Defossé, Debray, Michel, Sorrentino, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
- Chemical durability tests, acrylic fibres, 33
- Chemical resistance, polystyrene concrete, 276
- Chloride diffusion, 75, 77
- Chloride ion permeability, effect of silica fume, 279-86
- Chloride penetration, reinforced concrete, 257
- Chloride permeability and freeze-thaw damage, 233-9
- Compression-splitting tests, 83-91
- Compressive strength
  - development with age, 275
  - effect of silica fume, 281
  - effect of water to cement ratio, 275
  - lightweight concrete beams, 49
  - rubberized concrete, 291
  - steel fibre concrete, 9-14
- Concrete structures, repair and testing, 153r
- Concrete technology, 227r
- Conferences and symposia, forthcoming, 67-9c, 157-9c, 229-30c, 317-8c
- Corrosion
  - reinforcing bars, effect of additions, 253-60
  - weldmesh ferrocement, 112
- Corrosion potentials, blended cement paste and concrete, 78
- Corrosion resistance, blended cement paste and concrete, 75
- **Coutts, R.S.P.**, Langfors, Zhu and Tobias, 'Air-cured banana-fibre-reinforced cement composites', 3-8
- Crack space, weldmesh ferrocement under cyclic loading, 107-14
- Crack width, weldmesh ferrocement under cyclic loading, 107-14
- **Criaud, A.**, Defossé, Chabanis, Debray, Michel, Sorrentino, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
- Cyclic loading, weldmesh ferrocement, 107-14

- **Debray, L.**, Criaud, Defossé, Chabanis, Michel, Sorrentino, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206

Defossé, C., Criaud, Chabanis, Debray, Michel, Sorrentino, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Density, banana-fibre-reinforced cement composites, 7
Diamond, Sidney and Ong, 'Effects of added alkali hydroxides in mix water on long-term SO^- concentrations in pore solution', 219-226
Diggins, R., Shayan and Ivanusec, 'Suitability of two rapid test methods for determining the alkali reactivity of sands', 177-188
Drying shrinkage, polystyrene concrete, 276
Ductility, fibre-reinforced cement composites, 23
Durability, wastepaper-fibre-reinforced cement composites, 115-28

El-Korchi, Tahar, Katz and Toutanji, 'Strength and reliability of carbon-fiber-reinforced cement composites', 15-21
Eldin, Neil N. and Senouci, 'Measurement and prediction of the strength of rubberized concrete', 287-298
Expanded polystyrene beads in hardened concrete, 273-7

Failure modes, rubberized concrete, 292
Ferrocement
  crack space and crack width, 107-14
  laminates for strengthening RC T-beams, 143-52
Fibre-reinforced calcium phosphate cement composites, interfacial and mechanical behaviour, 93-106
Fibre-reinforced cement composites
  banana, 3-8
  carbon, 15-21
  pseudo-strain-hardening, 23
  strength and ductility, 23-9
  tensile strength, 23
  wastepaper, 115-28
Fibre-reinforced concrete, reinforcing-bar bond behaviour, 129-41
Fibre-reinforced-plastic reinforcement, 1-2e, 65-6r
Finite element analysis
  fracture toughness, 85
  steel-concrete composite beams, 261-72
  stress distribution, 85
Flexural resistance, acrylic fibres, 32
Flexural strength
  banana-fibre-reinforced cement composites, 6
  carbon-fibre-reinforced composites, 18
Flexural toughness, acrylic fibres, 32
Fly ash
  effect on corrosion resistance, 253-60
  in alkali-silica reaction, 207-18
Fracture toughness
  banana-fibre-reinforced cement composites, 7
  evaluation of, 83-91
  finite element analysis, 85
  rubberized concrete, 292
François-Brazier, J., Glinicki, Vautrin and Soukatchoff, 'Plate impact testing method for GRC materials', 241-251
Freeze/thaw characteristics, rubberized concrete, 291
Freeze/thaw damage and chloride permeability, 233-9
Frenette, J. and Bérubé, 'Testing concrete for AAR in NaOH and NaCl solutions at 38°C and 80°C', 189-198

Gallias, M., Criaud, Defossé, Chabanis, Debray, Michel, Sorrentino, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Glass fibre reinforced cement, impact tests, 241-51
Glinicki, M.A., Vautrin, Soukatchoff and François-Brazier, 'Plate impact testing method for GRC materials', 241-251
Ground blast-furnace slag in alkali-silica reaction, 207-18
Guédon, S., Criaud, Defossé, Chabanis, Debray, Michel, Sorrentino, Gallias, Salomon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Gupta, A.P., Ray and Biswas, 'Effect of latex and superplasticiser on Portland cement mortar in the fresh state', 309-316

Hardened concrete, expanded polystyrene beads in, 273-7
High-performance-fibre-reinforced-concrete (HPFRC), reinforcing-bar bond behaviour, 129-41
Hsu, Jer-Wen, Soroushian, Shah and Won, 'Durability and moisture sensitivity of recycled wastepaper-fiber-cement composites', 115-28

Impact failure load, 248
Impact resistance, acrylic fibres, 32
Impact tests, GRC materials, 241-51
Inertial effects on impact load history, 247
Ishimori, Hiroshi, Saito and Ohta, 'Chloride permeability of concrete subjected to freeze-thaw damage', 233-239
Ivanusec, I., Shayan and Diggins, 'Suitability of two rapid test methods for determining the alkali reactivity of sands', 177-188

J-integral method, 88

Katz, R. Nathan, Toutanji and El-Korchi, 'Strength and reliability of carbon-fiber-reinforced cement composites', 15-21
Kawamura, Mitsunori and Torii, 'Pore structure and chloride ion permeability of mortars containing silica fume', 279-286
Khatib, J.M., Molloy and Mangat, 'Microstructure, chloride diffusion and reinforcement corrosion in blended cement paste and concrete', 73-81
Kishitani, Koichi, Kobayashi and Tamura, 'The rapid test JIS A 1804', 169-175
Kobayashi, Masaki, Kishitani and Tamura, 'The rapid test JIS A 1804', 169-175
Kouloumbi, N., Batis and Malami, 'The anticorrosive effect of fly ash, slag and Greek pozzolan in reinforced concrete', 253-260
Krstulovic-Opara, Neven, Watson and LaFave, 'Effect of increased tensile strength and toughness on reinforcing-bar bond behavior', 129-141

LaFave, James M., Watson and Krstulovic-Opara, 'Effect of increased tensile strength and toughness on reinforcing-bar bond behavior', 129-141
Langfors, G, Zhu, Tobias and Coutts, 'Air-cured banana-fibre-reinforced cement composites', 3-8
Latex, effect on Portland cement mortar, 309-16
Le Roux, A., Criaud, Defossé, Chabanis, Debray, Michel, Sorrentino, Gallias, Salomon and Guédon, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Li, Victor C. and Wu, 'Trade-off between strength and ductility of random discontinuous fiber reinforced cementitious composites', 23-29
Lightweight concrete
  chloride permeability, 238
  strength variations, 49-55
Lim, C.T.E., Paramasivam and Ong, 'Ferrocement laminates for strengthening RC T-beams', 143-152
Linear-elastic fracture mechanics (LEFM), 83
Load-displacement curves, GRC, 248

Madandoust, R. and Bungey, 'Strength variations in lightweight concrete beams', 49-55
Mailvaganam, Noel P., 153r
Malami, Ch., Kouloumbi and Batis, 'The anticorrosive effect of fly ash, slag and Greek pozzolan in reinforced concrete', 253-260
Mangat, P.S., Khatib and Molloy, 'Microstructure, chloride diffusion and reinforcement corrosion in blended cement paste and concrete', 73-81

Mangialardi, T., Berra and Paolini, 'Application of the NaOH bath test method for assessing the effectiveness of mineral admixtures against reaction of alkali with artificial siliceous aggregate', 207-218
Mehta, P.K., 155c, 227r
Michel, B., Criaud, Defossé, Chabanis, Debray, Sorrentino, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Mineral admixtures in alkali-silica reaction, 207-18
Mingshu, Tang, Xianghui and Sufen, 'Autoclave method for identification of alkali-reactive carbonate rocks', 163-167
Modulus of elasticity
  banana-fibre-reinforced cement composites, 7
  polystyrene concrete, 276
Modulus of rupture, calcium phosphate cements, 101-3
Moisture sensitivity, wastepaper-fibre-reinforced cement composites, 115-28
Molloy, B.T., Mangat and Khatib, 'Microstructure, chloride diffusion and reinforcement corrosion in blended cement paste and concrete', 73-81
Moment-curvature relationships in steel-concrete composite beams, 264
Municipal wastewater sludge as cementitious and blended cement materials, 39-48
Murugappan, K., Paramasivam and Tan, 'Constitutive relation for steel fibre concrete under biaxial compression', 9-14

Nanni, Antonio, 65r
Neural networks, 295-7
Non-destructive testing, lightweight concrete beams, 49

Ohta, Minoru, Saito and Ishimori, 'Chloride permeability of concrete subjected to freeze-thaw damage', 233-239
Ong, K.C.G., Paramasivam and Lim, 'Ferrocement laminates for strengthening RC T-beams', 143-152
Ong, Shaode and Diamond, 'Effects of added alkali hydroxides in mix water on long-term SO^{-} concentrations in pore solution', 219-226

Palomo, A., Amat and Blanco, 'Acrylic fibres as reinforcement for cement pastes', 31-37
Paolini, A.E., Berra and Mangialardi, 'Application of the NaOH bath test method for assessing the effectiveness of mineral admixtures against reaction of alkali with artificial siliceous aggregate', 207-218
Paramasivam, P., Ong and Lim, 'Ferrocement laminates for strengthening RC T-beams', 143-152
Paramasivam, P., Tan and Murugappan, 'Constitutive relation for steel fibre concrete under biaxial compression', 9-14
Petrography, aggregates, 201, 204
Polarisation resistance, blended cement paste and concrete, 78
Polyacrylonitrile-based carbon fibres, 1-2e, 15
Polystyrene aggregate concrete, 273
Porco, G., Spadea and Zinno, 'Finite element analysis and parametric study of steel-concrete composite beams', 261-272
Pore structure
  blended cement paste and concrete, 74, 76
  effect of silica fume, 279-86
Porosity, blended cement paste and concrete, 74, 76
Portland cement, effect of latex and superplasticiser, 309-16
Pozzolans
  effect on corrosion resistance, 253-60
  in alkali-silica reaction, 207-18
Pseudo-strain-hardening
  fibre-reinforced cement composites, 23
  HPFRC, 131

Ravindrarajah, R. Sri, 153r
Ravindrarajah, R. Sri and Tuck, 'Properties of hardened concrete containing treated expanded polystyrene beads', 273-277
Ray, Indrajit, Gupta and Biswas, 'Effect of latex and superplasticiser on Portland cement mortar in the fresh state', 309-316
Reinforced concrete
  corrosion resistance of reinforcing bars, 253-60
  effect of steel fibre, 299-307
  flexural behaviour of T-beams, 143-52
  shrinkage, 299-307
Reinforcing bars
  bond behaviour, 129-41
  corrosion resistance, 253-60
Reliability analysis, CFRC composites, 19
Richards, M.R., Robins and Austin, 'The resistance of steel fibre concrete to VTOL engine jet blast', 57-64
Robins, P.J., Austin and Richards, 'The resistance of steel fibre concrete to VTOL engine jet blast', 57-64
Rubberized concrete, strength measurement and prediction, 287-98
Sabir, B.B., 'The use of compression-splitting tests in evaluating the fracture toughness of concrete', 83-91
Saito, Mitsuru, Ohta and Ishimori, 'Chloride permeability of concrete subjected to freeze-thaw damage', 233-239
Salomon, M., Criaud, Defossé, Chabanis, Debray, Michel, Sorrentino, Gallias, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Sands, alkali reactivity, 177-88
Senouci, Ahmed B. and Eldin, 'Measurement and prediction of the strength of rubberized concrete', 287-298
Shah, Zahir, Soroushian, Won and Hsu, 'Durability and moisture sensitivity of recycled wastepaper-fiber-cement composites', 115-128
Shayan, A., Ivanusec and Diggins, 'Suitability of two rapid test methods for determining the alkali reactivity of sands', 177-188
Shayan, Ahmad, 161-162e
Show, Kuan-Yeow and Tay, 'Municipal wastewater sludge as cementitious and blended cement materials', 39-48
Silica fume, 279-86
  effect on durability and moisture sensitivity, 123
  in alkali-silica reaction, 207-18
Singh, G. and Xiong, 'Crack space and crack width of weldmesh ferrocement under cyclic loading', 107-114
Slag
  effect on corrosion resistance, 253-60
  see also Blast-furnace slag
Soroushian, Parviz, Shah, Won and Hsu, 'Durability and moisture sensitivity of recycled wastepaper-fiber-cement composites', 115-128
Sorrentino, D., Criaud, Defossé, Chabanis, Debray, Michel, Gallias, Salomon, Guédon and Le Roux, 'The French standard methods for evaluating the reactivity of aggregates with respect to AAR', 199-206
Soukatchoff, P., Glinicki, Vautrin and François-Brazier, 'Plate impact testing method for GRC materials', 241-251
Spadea, G., Porco and Zinno, 'Finite element analysis and parametric study of steel-concrete composite beams', 261-272
Steel-concrete composite beams, finite element analysis, 261-72
Steel fibre, effect on shrinkage, 299-307
Steel fibre concrete
  biaxial compression, 9-14
  compressive strength, 9-14
  resistance to VTOL engine jet blast, 57-64
  stress-strain relation, 9-14
Stress distribution, finite element analysis, 85
Stress intensity factors, determination of, 87
Stress-strain curve, rubberized concrete, 292
Stress-strain relation, steel fibre concrete, 9-14

Sufen, Han, Mingshu and Xianghui, 'Autoclave method for identification of alkali-reactive carbonate rocks', 163-167
Sugama, T. and Taylor, 'Interfacial and mechanical behavior of fiber-reinforced calcium phosphate cement composites', 93-106
Superplasticiser, effect on Portland cement mortar, 309-16
Swamy, R.N., 227r

Tamura, Hiroshi, Kishitani and Kobayashi, 'The rapid test JIS A 1804', 169-175
Tan, K.H., Murugappan and Paramasivam, 'Constitutive relation for steel fibre concrete under biaxial compression', 9-14
Tay, Joo-Hwa and Show, 'Municipal wastewater sludge as cementitious and blended cement materials', 39-48
Taylor, M. and Sugama, 'Interfacial and mechanical behavior of fiber-reinforced calcium phosphate cement composites', 93-106
Tensile resistance, acrylic fibres, 32
Tensile strength
  carbon-fibre-reinforced composites, 18
  fibre-reinforced cement composites, 23
  polystyrene aggregate concrete, 275
  rubberized concrete, 291
Test methods
  AASHTO T277, 233
  AASHTO T277-831, 279-86
  accelerated mortar bar test, 179
  alkali-aggregate reactivity, 161e, 189-98, 199-206
  alkali reactivity of aggregates, 169
  alkali reactivity of sands, 177-88
  chemical dissolution test, 205
  chemical durability, 33
  compression-splitting tests, 83-91
  concrete prism expansion, 205
  impact, 241-51
  JIS A 1804, 169
  lightweight concrete beams, 49
  mortar bar expansion, 205, 207-18
  mortar bar test, 178
  NaOH bath test, 207-18
  reactivity of carbonate rocks, 163-7
  reinforcing-bar pull-out tests, 129
  slump test, 288
Tobias, B.C., Coutts, Langfors and Zhu, 'Air-cured banana-fibre- reinforced cement composites', 3-8
Torii, Kazuyuki and Kawamura, 'Pore structure and chloride ion permeability of mortars containing silica fume', 279-286
Toutanji, Houssam A., El-Korchi and Katz, 'Strength and reliability of carbon-fiber-reinforced cement composites', 15-21
Tuck, A.J. and Ravindrarajah, 'Properties of hardened concrete containing treated expanded polystyrene beads', 273-277

Vautrin, A., Glinicki, Soukatchoff and Françoise-Brazier, 'Plate impact testing method for GRC materials', 241-251
VTOL aircraft engine jet blast, 57

Wastepaper-fibre-cement composites, durability and moisture sensitivity, 115-28
Water absorption, banana-fibre-reinforced cement composites, 7
Watson, Kimberly A., Krstulovic-Opara and LaFave, 'Effect of increased tensile strength and toughness on reinforcing-bar bond behavior', 129-141
Weldmesh ferrocement under cyclic loading, crack space and crack width, 107-14
Won, Jong-Pil, Soroushian, Shah and Hsu, 'Durability and moisture sensitivity of recycled wastepaper-fiber-cement composites', 115
Workability of rubberized concrete, 289
Wu, Hwai-Chung and Li, 'Trade-off between strength and ductility of random discontinuous fiber reinforced cementitious composites', 23-29

X-ray diffraction analysis, 279-86
X-ray photoelectron spectroscopy (XPS), 95
Xianghui, Lan, Mingshu and Sufen, 'Autoclave method for identification of alkali-reactive carbonate rocks', 163-167
Xiong, G.J. and Singh, 'Crack space and crack width of weldmesh ferrocement under cyclic loading', 107-114

Zhu, W.H., Tobias, Coutts and Langfors, 'Air-cured banana-fibre-reinforced cement composites', 3-8
Zinno, R., Porco and Spadea, 'Finite element analysis and parametric study of steel-concrete composite beams', 261-272